

What is claimed is:

1. A protein selected from the group consisting of:
  - (A) a protein which has the amino acid sequence of SEQ ID NO: 4;
  - (B) a protein which has the amino acid sequence of SEQ ID NO: 4 including substitution, deletion, insertion or addition of one or several amino acid residues and has lysine decarboxylase activity.
2. A protein selected from the group consisting of:
  - (A) a protein which has the amino acid sequence of SEQ ID NO: 4;
  - (B) a protein which has the amino acid sequence of SEQ ID NO: 4 including substitution, deletion, insertion or addition of one or several amino acid residues, whereby said protein has lysine decarboxylase activity and is at least 90% homologous to SEQ ID NO: 4.
3. A DNA encoding a protein selected from the group consisting of:
  - (A) a protein which has the amino acid sequence of SEQ ID NO: 4;
  - (B) a protein which has the amino acid sequence of SEQ ID NO: 4 including substitution, deletion, insertion or addition of one or several amino acid residues and has lysine decarboxylase activity.
4. A DNA encoding a protein selected from the group consisting of:
  - (A) a protein which has the amino acid sequence of SEQ ID NO: 4;
  - (B) a protein which has the amino acid sequence of SEQ ID NO: 4 including substitution, deletion, insertion or addition of one or several amino acid, whereby said protein has lysine decarboxylase activity and is at least 90% homologous to SEQ ID NO: 4.
5. The DNA of claim 3, selected from the group consisting of:
  - (a) a DNA which has the nucleotide sequence of the nucleotide numbers 684 to 2930 in SEQ ID NO: 3;
  - (b) a DNA which is hybridizable with a DNA having the nucleotide sequence of the nucleotide numbers 684 to 2930 in SEQ ID NO: 3 under stringent conditions and which encodes a protein having lysine decarboxylase activity.

6. The DNA of claim 3, which is derived from a chromosome of a *Methylophilus* bacterium.

7. A *Methylophilus* bacterium which produces L-lysine and is modified so that intracellular lysine decarboxylase activity is reduced or eliminated.

8. A *Methylophilus* bacterium which produces L-lysine, wherein a gene on a chromosome having a nucleotide sequence identical to the DNA of claim 3 is disrupted, or a gene on a chromosome having homology to the DNA of claim 3 to such a degree that homologous recombination with the DNA occurs is disrupted, thereby expression of said gene is suppressed and the intracellular lysine decarboxylase activity is reduced or eliminated.

9. A method for producing L-lysine, comprising the steps of culturing the *Methylophilus* bacterium of claim 7 or 8 in a medium containing methanol as a major carbon source resulting in accumulation of L-lysine in culture, and collecting the L-lysine from the culture.